

Title (en)
OFFSET COMPENSATED DIFFERENTIAL AMPLIFIER AND CALIBRATION CIRCUIT PROVIDING INCREASED LINEAR RANGE AND GRANULARITY OF OFFSET COMPENSATION AND RELATED METHOD

Title (de)
OFFSETKOMPENSIERTER DIFFERENZVERSTÄRKER UND KALIBRIERUNGSSCHALTUNG MIT ERHÖHTEM LINEARBEREICH UND GRANULARITÄT DER OFFSETKOMPENSATION UND ZUGEHÖRIGES VERFAHREN

Title (fr)
AMPLIFICATEUR DIFFÉRENTIEL À COMPENSATION DE DÉCALAGE ET CIRCUIT D'ÉTALONNAGE FOURNISSANT UNE PLAGE LINÉAIRE ACCRUE ET UNE GRANULARITÉ DE COMPENSATION DE DÉCALAGE ET PROCÉDÉ ASSOCIÉ

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Application
EP 21811619 A 20211028

Priority
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Abstract (en)
[origin: US11239807B1] An offset compensated differential amplifier employing a multi-tan h circuit comprising differential pairs coupled in parallel to compensate for an offset voltage of the output voltage in the offset compensation calibration mode is disclosed. The differential pairs each include a compensation transistor coupled to the positive internal node and a reference transistor coupled to the negative internal node. Each compensation transistor receives the compensation control voltage and each reference transistor receives a different reference voltage. The multi-tan h circuit generates an offset compensation voltage on the positive and negative internal nodes based on a difference between the compensation control voltage and the different reference voltages. The multi-tan h circuit comprises a larger linear range than a hyperbolic tangent current transfer function of a single differential pair. The offset compensated differential amplifier provides offset compensation with improved linearity and a finer granularity compared to a conventional differential amplifier.

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CPC (source: EP US)
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Citation (search report)
See references of WO 2022119667A1

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